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ADST
Version Description Document for the BDS-D Data Logger 1.0.0

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This Version Description Document outlines the components included for the initial software release of the BDS-D Data Logger 1.0.0

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Table of Contents

1.0 Scope

This Version Description Document (VDD) contains a functional description of the Data Logger software, all modules in this release are identified by version number, a set of build instructions, installation procedures, identification of any known problems, release notes and any essential data relationships that are part of this 2 April 1993 release of the BDS-D Data Logger 1.0.0.

1.1 Identification

This VDD defines the 2 April 1993 initial release of the Data Logger, release version BDS-D Data Logger 1.0.0.

1.2 System Overview

Soldier in the loop simulators exist at the Aviation Test Bed (AVTB) located at Ft. Rucker, Alabama and the Mounted Warfare Test Bed (MWTB) located at Ft. Knox, Kentucky. The simulators include Rotary Wing Aircraft (RWA, only at Ft. Rucker), M1 tanks, Bradley Fighting Vehicles, Fixed Wing Aircraft (FWA), a Management, Command and Control system (MCC), Non Line of Sight vehicle (NLOS, located at Ft. Knox only), and, finally, a Semi-Automated Forces system (SAFOR). The datalogger is a stand-alone system which is connected to the Simulation Network. It has two main functions: To record and playback exercise(s) which are taking place on the simulated battlefield. Exercise recording consists of capturing Protocol Data Units (PDUs) in real-time, and storing them on media (disk or tape). The PDUs are timestamped by the Datalogger and stored in a linear fashion thereby consuming less space. The recorded exercise(s) can be recreated by using the datalogger "playback" feature. The recorded PDUs are sent back out on the Simulation Network at the same rate they were recorded via the timestamping mechanism.

1.3 Document Overview

This document was prepared in accordance with DID DI-MCCR-80013A of DOD-STD-2167A and defines the 2 April 1993 release of version BDS-D Data Logger 1.0.0.

2.0 Referenced Documents

2.1 Government Documents

DI-MCCR-80013A	Version Description Document, 29 February 1988
DOD-STD-2167A	Defense System Software Development, 29 February 1988

2.2 Non-Government Documents

ADST/WDL/TR--92-00640-YR1 28 October 1992	Advanced Distributed Simulation Technology System Definition Document
ADST/WDL/TR--92-003023 15 January 1993	ADST Configuration Management Plan
ADST/WDL/TR--93-003074 2 April 1993	Data Logger Coldstart Procedures

3.0 Version Description

This release includes the version BDS-D Data Logger 1.0.0 of the Data Logger.

3.1 Inventory of Materials Released

Listed below is the physical media and support documentation required to build, load and operate the Data Logger. The Data Logger release version BDS-D Data Logger 1.0.0 consists of all the source code needed to build the system, executables and data files required to run the system on a Masscomp 5600 machine, as well as load maps of this official delivery.

Type	ID No.	Title
DC 6150 Tape *		BDS-D Data Logger 1.0.0
Document	ADST/WDL/TR--93-003074	Data Logger Coldstart Procedures
Document	ADST/WDL/TR--93-003073	BDS-D Data Logger 1.0.0 VDD

* Delivered upon request and may require approval of STRICOM.

3.2 Inventory of CSCI Contents

Appendix A provides a listing of all of the Data Logger CSCI source files which were used to create release BDS-D Data Logger 1.0.0. All source files reside on the Configuration Management and Control Sun Sparc workstation and are configuration controlled using the Revision Control System (RCS), which is described in more detail in the ADST Configuration Management Plan Doc #: ADST/WDL/TR--92-003023, 15 January 1993 and in Appendix A of this document.

3.3 Changes Installed

This release of the version BDS-D Data Logger 1.0.0 captures the Masscomp based Data Logger SIMNET 6.6.3 software version. No additional SP/CRs are included in this release.

3.4 Adaptation Data

No adaptation data is needed for the BDS-D Data Logger 1.0.0.

3.5 Coldstart Procedures

The separate Data Logger Cold Start Procedures, document no. ADST/WDL/TR--93-003074, provides detailed cold start instructions for the BDS-D Data Logger 1.0.0 release.

3.6 Build and Distribution Instructions

Building the Data Logger 1.0.0

The following equipment and instructions are necessary for building the Data Logger version 1.0.0. Since the Data Logger shares much of the Planned View Display (PVD) libraries when linking, it is necessary for the PVD to be built first, before the Data Logger build is performed. If the PVD build is current, disregard the PVD build instructions in the following build procedure. SP/CRs have been written to split the Data Logger out of the PVD as a stand alone CPCI in future releases.

System Requirements:

Masscomp 5600
150 Mb cartridge tape drive
25 Mb disk space
Unix Version simnet Release 4.0A
Masscomp C compiler version 1.3

Instructions:

1) Login to the Masscomp 5600 target system as "guest" or "root"

2) Make the following directories for dumping the PVD and Data Logger delivery tapes.

```
mkdir /pvd
mkdir /logger
```

3) Load the pvd release tape in the tape drive and dump it to the pvd directory created in step 2.

```
cd /pvd
tar xvapf /dev/rctp    (Note: Inquire with the system manager for the name of the
                        tape drive on the target machine.)
```

4) Load the Data Logger release tape in the tape drive and dump it to the logger directory created in step 2.

```
cd /logger
tar xvapf /dev/rctp    (Note: Inquire with the system manager for the name of the
                        tape drive on the target machine.)
```

5) From the "/pvd" directory, make symbolic links if they are not already there.

```
ln -s /pvd/common /common
ln -s /pvd/simnet /simnet
```

6) From the "/pvd" directory, run the following script to build the libraries and link the executable. The directory path for where the build will be performed must be added as a parameter to the build command.

```
cd /pvd
BUILD_PVD /pvd
```

(Note: Review the error logs to determine if the build was successful.)

7) Once the PVD has been built successfully and verified, continue with the Data Logger build by running the following script to build the Data Logger source and link with the PVD libraries to create an executable. The directory path for where the build will be performed must be added as a parameter to the build command.

```
cd /logger
BUILD_LOGGER    /logger
```

(Note: Review the error logs to determine if the build was successful.)

3.7 Regression Test Results

This release is a recreation of Data Logger (BBN) version 6.6.3 after being placed under configuration management control. No existing Data Logger test procedures are available for regression testing. A successful CM build was verified by operational use of the Data Logger release in the Loral, San Jose Software Development Facility (SDF).

3.8 BDS-D Data Logger Software Release Notes

There are no release notes available for the BDS-D Data Logger 1.0.0 application software initial release.

3.9 Interface Compatibility

The BDS-D Data Logger 1.0.0 release remains compatible with the SIMNET interface.

3.10 Bibliography

Management, Command and Control System (MCC) Operations Documentation Report No. IEITR-74563; 15 March 1990.

3.11 Summary of Changes

Initial release. No summary of changes to baseline are available.

3.12 Installation Instructions

Detailed installation procedures are included in the Cold Start Procedures Manual for the BDS-D Data Logger 1.0.0, Doc. # ADST/WDL/TR--93-003074, dated 2 April 1993.

3.13 Possible Problems, Known Errors and Enhancements

The open SP/CR's pertaining to this system release are as follows:

SP/CR #	Title
27	No DIS Option when "DIS type" is not Responded to with a "Y"
97	Take out debug statements at exit
122	Add Paul Monday's Data Logger functionality to the baseline
123	Add logging of DIS PDUs to logger 6.6.3c

4.0 Notes

The following is a list of acronyms used in this document.

ADST	Advanced Distributed Simulation Technology
AVTB	Aviation Test Bed
BBN	Bolt, Beranek, & Newman
MWTB	Mounted Warfare Test Bed
FWA	Fixed Wing Aircraft
MCC	Management, Command and Control system
NLOS	Non Line of Sight
RWA	Rotary Wing Aircraft
SAFOR	Semi-Automated Forces system
SP/CRs	Software Problem/Change Reports
VDD	Version Description Document
CSP	Cold Start Procedures

Appendix A Source Code Listings

BDS-D Data Logger 1.0.0 RCS Description

The baseline code for BDS-D Data Logger 1.0.0 is documented in listings attached to this Appendix. Starting at the top of the Data Logger directory tree, a history of each file is produced from the Revision Control System (RCS) subdirectories. All baselined Data Logger files are checked into the RCS subdirectories. RCS files (denoted by the ",v") and its corresponding working file make up each directory in the Data Logger directory tree. Along with each filename is a brief description of the reason for the check in. For example, "Initial Turnover - BBN's 6.6.1" documents the reason for checking the code into RCS. RCS automatically supplies a revision number. Each file checked into RCS is initially assigned a revision number of 1.1. Revision numbering is incremented in tenths (1.2, 1.3, 1.4, etc.,).

A snapshot of what was turned over by BBN and successfully built and tested was brought under LORAL configuration management control and assigned a release number of BDS-D Data Logger 1.0.0. This release consists of all the source code required to produce the Data Logger executable, and configuration and data files necessary to run the Data Logger application on a Masscomp 5600 computer. These files and their corresponding RCS revision number, are represented in the following listings

```
RCS file: ./data/RCS/loghelp,v
Working file: loghelp
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:25:57;  author: cm-adst;  state: Exp;
Initial revision
============================================================================

RCS file: ./data/RCS/network.def,v
Working file: network.def
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:25:42;  author: cm-adst;  state: Exp;
Initial Version
============================================================================

RCS file: ./simnet/data/RCS/fiodevs,v
Working file: fiodevs
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:31:48;  author: cm-adst;  state: Exp;
Initial revision
============================================================================
```

RCS file: ./simnet/data/RCS/loghelp,v
Working file: loghelp
head: 1.1
description:
Initial Data Logger Turnover
---
revision 1.1
date: 1992/10/30 00:32:16; author: cm-adst; state: Exp;
Initial revision
===

RCS file: ./simnet/data/RCS/network.def,v
Working file: network.def
head: 1.1
description:
Initial Data Logger Turnover
---
revision 1.1
date: 1992/10/30 00:31:05; author: cm-adst; state: Exp;
Initial Version
===

RCS file: ./src/RCS/Makefile,v
Working file: Makefile
head: 1.1
description:
Initial Data Logger Turnover
---
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
===

RCS file: ./src/RCS/cmc.c,v
Working file: cmc.c
head: 1.1
description:
Initial Data Logger Turnover
---
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
===

RCS file: ./src/RCS/cmc.h,v
Working file: cmc.h
head: 1.1
description:
Initial Data Logger Turnover
---
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
===

RCS file: ./src/RCS/fiodisk.c,v
Working file: fiodisk.c
head: 1.1
description:
Initial Data Logger Turnover
---
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version

```
=============================================================================

RCS file: ./src/RCS/global.h,v
Working file: global.h
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/logfilt.c,v
Working file: logfilt.c
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/logfilt.h,v
Working file: logfilt.h
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/logger.c,v
Working file: logger.c
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/logger.h,v
Working file: logger.h
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/queue.c,v
Working file: queue.c
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
```

date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
==========

RCS file: ./src/RCS/queue.h,v
Working file: queue.h
head: 1.1
description:
Initial Data Logger Turnover
----
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
==========

RCS file: ./src/RCS/racal.c,v
Working file: racal.c
head: 1.1
description:
Initial Data Logger Turnover
----
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
==========

RCS file: ./src/RCS/racal.h,v
Working file: racal.h
head: 1.1
description:
Initial Data Logger Turnover
----
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
==========

RCS file: ./src/RCS/rtc.c,v
Working file: rtc.c
head: 1.1
description:
Initial Data Logger Turnover
----
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
==========

RCS file: ./src/RCS/rtc.h,v
Working file: rtc.h
head: 1.1
description:
Initial Data Logger Turnover
----
revision 1.1
date: 1992/10/30 00:34:58; author: cm-adst; state: Exp;
Initial Version
==========

RCS file: ./src/RCS/timer.c,v
Working file: timer.c
head: 1.1
description:
Initial Data Logger Turnover

```
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/timer.h,v
Working file: timer.h
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/user.c,v
Working file: user.c
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/user.h,v
Working file: user.h
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/util.c,v
Working file: util.c
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./src/RCS/util.h,v
Working file: util.h
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:58;  author: cm-adst;  state: Exp;
Initial Version
=============================================================================

RCS file: ./tools/RCS/build.log,v
Working file: build.log
head: 1.1
```

```
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:33:45;  author: cm-adst;  state: Exp;
Initial revision
============================================================================

RCS file: ./tools/RCS/install.log,v
Working file: install.log
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:33:20;  author: cm-adst;  state: Exp;
Initial revision
============================================================================

RCS file: ./tools/RCS/mkappltape,v
Working file: mkappltape
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:34:05;  author: cm-adst;  state: Exp;
Initial revision
============================================================================

RCS file: ./RCS/BUILD_LOGGER_663,v
Working file: BUILD_LOGGER_663
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:28:26;  author: cm-adst;  state: Exp;
Initial revision
============================================================================

RCS file: ./RCS/fiodevs,v
Working file: fiodevs
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:27:56;  author: cm-adst;  state: Exp;
Initial revision
============================================================================

RCS file: ./RCS/makefile,v
Working file: makefile
head: 1.1
description:
Initial Data Logger Turnover
----------------------------
revision 1.1
date: 1992/10/30 00:27:35;  author: cm-adst;  state: Exp;
Initial Version
============================================================================
```